ENTREPRENEURIAL INTENTIONS IN THE THIRD AGE: THE IMPACT OF CAREER HISTORY

Teemu Kautonen: University Of Vaasa, Department Of Management, Seinäjoki, Finland
Seppo Luoto: University Of Vaasa, Department Of Management, Seinäjoki, Finland
Erno Tornikoski: Em Lyon, Ecully Cedex, France

Contact: Teemu Kautonen, University of Vaasa, Department of Management, Kampusranta 9 C, 60320 Seinäjoki, Finland, (T) +358440244280, (F) +358 (06) 324 8195, Email: teemu.kautonen@uwasa.fi

ABSTRACT

This preliminary study investigates the formation of entrepreneurial intentions in the third age based on Ajzen’s (1991) Theory of Planned Behaviour (TPB). Moreover, a number of variables related to the individual and the surrounding environment are included in the research model: the cultural perception of older age, career history, gender, age and previous entrepreneurial experience. An empirical analysis of 358 Finnish individuals aged 50-64 clearly confirms the predictive validity of the TPB also in the context of older people. Further, the results show that especially the cultural perception of the enterprising potential of older people and gender have a significant indirect impact in this context, while career history plays a more marginal role.

INTRODUCTION

The current discussion on population ageing in most developed countries draws increasing research and policy interest to older workers. In this context, a number of recent conceptual and empirical studies have also drawn attention to entrepreneurship at older ages (e.g., Curran and Blackburn, 2001; Dollinger et al., 1988; Hart et al., 2004; Levesqué and Minniti, 2006; McKay, 2001; Weber and Schaper, 2004; Webster and Walker, 2005). In accordance to the definition of third age in Hart et al. (2004), the following analysis focuses on the 50 to 64 year old segment, that is, people over 50 who are still under the traditional retirement age of 65. Previous studies have found entrepreneurial activity rates to decline strongly beyond this age, and this age cohort is also the primary focus in policy (Kautonen et al., 2008).

At least two lines of argumentation make third age enterprise a topical issue. Firstly, given the ageing populations in the OECD countries (OECD, 2001), the growing numbers of early retirees with the experience and financial means for entrepreneurship (Dollinger et al., 1988) and “the potential for older people to be disenfranchised in jobs and through retirement” (McKay, 2001, p. 162), it is likely that the numbers of older business founders will be increasing. Secondly, promoting older entrepreneurship can be seen as a prospective policy option for prolonging the working life of older people (Kautonen et al., 2008; Webster and Walker, 2005), which is a potential remedy to the economic challenges caused by the ageing population (cf. Visco, 2001; Webster and Walker, 2005). While older enterprise is unlikely to be a panacea to these problems, it may make modest economic and social contributions making it a worthwhile target.
for enterprise support and policy (Kautonen et al., 2008). In addition to increasing their income, older individuals on the brink of retirement may see small-scale entrepreneurial activity as a positive way of keeping themselves active, thereby increasing their social inclusion and benefiting the society with their human and social capital (Kautonen et al., 2008; Webster and Walker, 2005).

From this perspective, studying the enterprising potential in the third age segment and the factors that predict the likelihood of older individuals starting up in business becomes particularly interesting. Previous entrepreneurship studies have employed Ajzen’s (1991) Theory of Planned Behaviour (TPB) to analyse entrepreneurial intentions (e.g., Davidsson, 1995; Fayolle et al., 2006; Kolvereid, 1996; Krueger et al., 2000; Tkachev and Kolvereid, 1999), while intentions in general are considered the best predictor of actual behaviour (Fishbein and Ajzen, 1975). In addition to merely applying the TPB to the third age segment – which is a contribution as such given that most research on entrepreneurial intentions so far has focused on students (see e.g., Davidsson, 1995 for a notable exception) – our analysis makes a more general contribution to the literature on older enterprise by examining the impact of career history and the cultural perception of older age in a society in this context (see Fuchs, 1982; McKay, 2001; Kautonen et al., 2008; Weber and Schaper, 2004). The empirical data used to test the tentative predictions outlined in the following section consist of 358 Finnish individuals aged 50-64.

THEORY DEVELOPMENT AND RESEARCH PROPOSITIONS

Entrepreneurial Intentions and the Theory of Planned Behaviour

Entrepreneurship scholars generally argue that entrepreneurial behaviour is intentional, and thus best predicted by intentions towards the behaviour (e.g., Bird, 1988; Krueger and Carsrud, 1993). More generally, intention to perform a behaviour has been described as the best single predictor of an individual’s actual behaviour (Fishbein and Ajzen, 1975; Krueger and Carsrud, 1993). Intentions are assumed to be “indications of how hard individuals are willing to try, of how much of an effort they are planning to exert, to perform the behaviour” (Ajzen, 1991, p. 181). The stronger the intention to engage in a behaviour, the more likely should be its actual performance. Thus, in order to predict entrepreneurial behaviour, the first step should be to understand how entrepreneurial intentions are formed. Ajzen’s (1988, 1991) Theory of Planned Behaviour (TPB) has become one of the most widely used psychological theories to explain and predict human behaviour (Kolvereid, 1996; Tkachev and Kolvereid, 1999) and it has been applied previously to analyse entrepreneurial intentions (e.g. Crant, 1996; Kolvereid, 1996; Krueger et al., 2000; Tkachev and Kolvereid, 1999).

A central principle of the TPB is the idea that intentions have three conceptually independent determinants, namely attitude towards the behaviour, subjective norm and perceived behavioural control (Ajzen, 1991, p. 188). *Attitude* towards the behaviour refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question. *Subjective norm* refers to the perceived social pressure to perform or not to perform that behaviour. *Perceived behavioural control* refers to the perceived ease or difficulty of performing the behaviour. According to Ajzen and Fishbein (2004, p. 431), the three theoretical antecedents should be sufficient to predict intentions, but only one to two may be necessary in any given application. Hence, according to the TPB, the relative importance of the three factors is likely to vary from one population to another.

In this study, we apply and test the TPB to predict entrepreneurial behaviour among older people. Echoing the TPB model, which predicts that the more favourable the attitude and subjective norm with respect to the behaviour and the greater the perceived behavioural control, the stronger should an individual’s intention be to perform the behaviour in question, we formulate the following proposition:

*Proposition 1: The more favourable the attitude and subjective norm with respect to starting up in business and the greater the perceived behavioural control, the higher the level of entrepreneurial intentions.*
Demographic and other characteristics related to the individual’s background and the surrounding environment are not directly included in the TPB. These factors are expected not to have a direct impact on intentions, but an indirect one filtered through the independent variables of attitudes, subjective norm and perceived behavioural control (Kolvereid, 1996; Krueger and Carsrud, 1993). Also Ajzen (1991) suggests that scholars should include past behaviour in the model to test the sufficiency of the TPB. For this purpose, our research model includes the cultural perception of older age in a society, characteristics of the individual’s career history and a number of general background characteristics commonly used in enterprise studies.

Cultural Perception of Older Age

The broader social context in which older people work and live is likely to have an impact on their entrepreneurial intentions. Here, our interest is particularly geared towards the cultural perception of older age as consisting of the social beliefs and stereotypes concerning the possibilities and competencies to start and complete activities such as setting up a business. Weber and Schaper (2004) point out that some cultures value ageing and believe that the greater wisdom and experience of older people is an asset, while other societies view older people as largely dependent persons with little to contribute. The former view could contribute to a sense of empowerment among older people, which in this context refers to a nurturing belief in capability or competence (Ashcroft, 1987), or helping people gain a sense of personal power or control over their lives. This is likely to contribute positively to entrepreneurial intentions and economic activity in the third age more generally.

The latter view, on the other hand, may give rise to ageism, which refers to a deep and profound prejudice against the elderly (Butler, 1987). Ageism might affect potential older entrepreneurs in the form, for example, of biased judgement by financiers and customers. However, it may also affect how older people perceive themselves. The notion of stigma, as developed by Goffman (1963), can assist in understanding the social meaning of old age. Here, an individual attribute, such as old age, can be stigmatizing when the individual fails to conform to the respective norms. If older people generally are not regarded as capable of enterprising behaviour, setting up a business violates against the social norm and results in a social stigma, which influences entrepreneurial intentions negatively. On this basis we propose that:

Proposition 2: The cultural perception of older age impacts on third age entrepreneurial intentions either positively or negatively, depending on whether it favours empowerment or tends towards ageism.

Career History

Three particular characteristics related to career history warrant our attention in this context. Firstly, we postulate that a career as a “blue-collar worker” has a negative influence on entrepreneurial intentions in the third age. Parallel to Castells’ (2000) conceptualizations of the “Industrial Age”, the concept of “blue-collar” career draws on employment-related expectations such as predictability, security, loyalty, a predetermined “career pathway” to progress along, and assumptions such as a long-term, even permanent, mutually rewarding association between an individual and their employer. A recent study by Hennequin (2007) found that in the “blue-collar” culture the security of work, good earnings and “respect of the good work” are highly appreciated. On the other hand, the socialization process in such cultures does not seem to support the cultural and linguistic practises associated with self-employment and entrepreneurial intentions. Havusela (1999), for instance, argued that people who have socialized into a “labouring culture” do not see entrepreneurship as an attractive career opportunity. This has been acknowledged in previous research on older enterprise as well. For example, Fuchs’ (1982) research showed that men (his study focused on white urban males in the US) who had had previous self-employment experience or who had been employees in jobs that are fairly similar to self-employment, for example in terms of independence, responsibility and performance-based pay, were much more likely to become entrepreneurs than “blue-collar” workers. Further, in their study of the PRIME Initiative’s (Prince’s Initiative for Mature Enterprise, a UK-based older enterprise support organization) work in a deprived area of the North East of England, Kautonen et al. (2008) found that the legacy of a proud male traditional work culture associated with heavy industry appeared to form a barrier to more enterprising behaviour because these long-term unemployed

997
men were very reluctant to accept the types of work offered in the new insecure labour market. Therefore, we propose that:

**Proposition 3a:** A primary career as an industrial worker is negatively associated with third age entrepreneurial intentions.

Secondly, following from the previous argument, also a career as a civil servant may have a negative impact on enterprising propensities. Mazzarol et al. (1999) found that previous government employment had a negative influence on business formation and postulated that this might be related to the exposure of government employees to a work environment and organizational culture that is not entrepreneurially oriented (see also Gibb, 2001). Hence, we propose that:

**Proposition 3b:** A primary career in the public sector is negatively associated with third age entrepreneurial intentions.

Thirdly, Gibb (2001) has argued that people from career backgrounds in large and complex organizations in industry or the public sector often have highly developed skills, yet find transferring these to the context of the small firm – and, we may infer, enterprising behaviour – difficult as this requires flexible, opportunistic and innovative rather than systematic behaviour. One way to obtain such skills is vicarious entrepreneurial experience acquired through working in a small, owner-managed firm. Already Cooper (1973) noticed that more spin-offs emerged from small firms than larger companies in the high technology sector due to a wider range of competencies being obtained in the small enterprises. Against this backdrop, we propose that:

**Proposition 3c:** A primary career in small organizations is positively associated with third age entrepreneurial intentions.

**Background Characteristics**

Finally, our research model included three characteristics related to the individual which are commonly used in enterprise studies and bear relevance in the context of third age entrepreneurship: gender, age and previous entrepreneurial experience. Previous studies suggest that even though factors such as childcare and related family obligations – which have been found to inhibit entrepreneurial behaviour among younger women – are no longer an issue in the third age, the social role of older women does not seem to favour enterprising behaviour (Kautonen, 2007; McKay, 2001). Thus, we expect older women to have a lower level of entrepreneurial intentions than men. Further, prior research has found evidence to suggest that entrepreneurial intentions decrease with age both within the third age segment (PRIME Initiative, 2006) and more generally (Rotefoss and Kolvereid, 2005). Lévesque and Minniti (2006) argue that as individuals get older, they become “less and less willing to commit time to activities which yield returns over time, such as starting a new firm” (2006, p. 181). It seems that older people prefer activities that yield instant returns, such as waged labour, or leisure time in the form of retirement. Finally, previous entrepreneurial experience has been found to positively influence the likelihood of establishing a business (Rotefoss and Kolvereid, 2005). Prior business ownership experience impacts on the mindset and knowledge base of the individual, making them more alert to entrepreneurial opportunities and providing basic skills in running a start-up business (Minniti and Bygrave, 2001; Ucbasaran et al., 2003). Therefore, we expect people with previous entrepreneurial experience to have stronger entrepreneurial intentions than people without previous business ownership experience.

**METHODOLOGY**

**Data**

The data used in the study were collected as part of a research project on Ostrobothnian entrepreneurship in Western Finland in November and December 2006. A random sample of 5600 individuals was obtained from the Finnish Population Register Centre using a sampling frame that included all individuals aged 15
to 75 who were registered as residents in one of these provinces at the time the sample was drawn (October 2006). Thus, the sampling frame comprised approximately 350,000 individuals. A postal questionnaire was used for data collection. We received a total of 1301 usable responses, resulting in a response rate of 23.2 %. This can be considered satisfactory based on previous experience.

A total of 572 respondents aged 50 or over participated in the study, amounting to 44 % of the total sample. We narrowed down the sample for this analysis to the 50-64 year old segment according to the definition of third age adopted from Hart et al. (2004). Further, we removed all respondents who were already either full or part-time entrepreneurs and excluded cases that contained so many missing values that one or more of the study’s indices could not have been reliably constructed. Thus, the final sample used in the analysis consists of 358 respondents aged 50 to 64. More than half (56 %) of the 358 respondents were female. The average age of the respondents was 56.5 years, the median age 56 years and 72 % of the respondents were below 60 years of age. Approximately 27 % of the respondents had a higher education degree either from a polytechnic or university.

Measures

The survey instrument used to collect the data was designed specifically to consider entrepreneurial intentions also in the third age. The questionnaire items related to the constructs in the Theory of Planned Behaviour were adapted from established literature, while the items related to the cultural perception of older age and career history were designed for the survey based on the conceptual literature summarized above. The full item list is available from the authors upon request.

Entrepreneurial Intentions. The dependent variable of this study, Entrepreneurial Intentions, is an index calculated as the average score of four items (Cronbach’s alpha = 0.70). These items follow the spirit but do not correspond exactly to the ones in Kolvereid (1996) because we adapted the original items for the context of older people. In the resulting index, a high score indicates a desire to become an entrepreneur, and a low score a desire to become/remain organizationally employed or, in the particular context of the ageing population, to retire (or stay retired).

Entrepreneurial Attitudes. A total of 15 items were used to measure the independent variable Entrepreneurial Attitudes. The formation of the final index involved five separate constructs. The following two constructs were used as measures of tendency towards organizational employment: Security (3 items, Cronbach’s alpha = 0.71) and Avoid Responsibility (3 items, Cronbach’s alpha = 0.68). Similarly, the following three constructs were assumed to measure attitudes favourable to enterprising behaviour: Authority & Autonomy (4 items, Cronbach’s alpha = 0.75), Self-realization (3 items, Cronbach’s alpha = 0.73) and Economic Opportunity (2 items, Cronbach’s alpha = 0.65). Following Kolvereid (1996), five indices were created by averaging the item scores. The three index scores measuring attitudes favourable to entrepreneurship were added in order to form a composite measure of entrepreneurial attitudes. Similarly, a composite measure of employment attitudes was obtained by adding the index scores of the two reasons assumed to favour a preference to become or remain organizationally employed. The final independent variable used in the analysis, Entrepreneurial Attitudes, was calculated as the numerical difference between the entrepreneurial attitude and employment attitude composite measures. Thus, the final index indicates the strength of the individual’s attitudes favourable to entrepreneurship when the negative influence of attitudes favouring organizational employment has been controlled for.

Subjective Norm. The independent variable Subjective Norm was constructed using three items measuring the individual’s beliefs concerning whether he or she thinks family, friends, colleagues or other important people think that the individual should or should not start up in business. These belief items were multiplied with the respective motivation to comply items (both measured on a seven-point Likert scale), which were measured as the degree to which these people’s opinions matter for the individual’s decision whether or not to start a business. Finally, the resulting products were added up to construct an overall measure of Subjective Norm (Cronbach’s alpha = 0.79).
Perceived Behavioural Control. The independent variable Perceived Behavioural Control was measured with three seven-point rating scales and an overall measure was obtained by averaging the scores on the three items (Cronbach’s alpha = 0.84).

Cultural perception of older age. Based on the literature review, we developed three items to measure the cultural perception of older age. These items were formulated to measure the degree to which the individual agrees that it is socially appropriate for an older person to start a business. An index was created by averaging the scores on the three items. Unfortunately, the scale did not work as we had hoped it would, resulting in a fairly low Cronbach alpha value (0.57). Therefore, the scale items need to be modified if applied in future studies and it would seem prudent to add more items to the scale too, in order to be able to drop items that do not work well without compromising the final index. Nevertheless, for the purposes of an explorative analysis, we decided to use the index in spite of the low alpha. However, the results obtained need to be interpreted with care and confirmed in future studies with a more reliable index.

Career history. We measured the characteristics of an individual’s career history with four variables. Industrial worker is a dummy variable in which the value one indicates that the individual has spent most of their career as a “blue-collar” employee in a large industrial organization (14.0 % of the sample). Similarly, public sector worker is a dummy variable which denotes that the individual has spent most of their career in paid employment (at any level of organizational hierarchy) in the public sector (28.5 % of the sample). Small organization worker, on the other hand, is a dummy variable that refers to those respondents who have spent most of their career in paid employment in organizations employing less than 50 people (52.1 % of the sample).

Background characteristics. Three variables related to the background characteristics of the respondents were included in the analysis. Gender was included as a dummy variable with the value one assigned to female respondents (56.1 % of the sample). Age was operationalized simply as the age of the respondent in years (average age 56.5 years). Previous entrepreneurial experience was operationalized as a dummy variable with the value one representing respondents who have owned at least one business previously but do not own one at the moment (true for 17.6 % of the sample).

Analysis

Our explorative analysis proceeded in two phases. In the first phase we used a four-step hierarchical regression analysis to examine the unique contribution of the background characteristics, the independent TPB variables, the cultural perception of older age and the career history variables – entered into the model in this sequence – on explaining the variance in entrepreneurial intentions. In the second phase of the analysis, we turned to the indirect effects of the cultural perception of older age, career history and background characteristics on entrepreneurial intentions via entrepreneurial attitudes, subjective norm and perceived behavioural control, as predicted by the TPB. We tested for these effects by utilizing the Partial Least Squares (PLS) approach to structural equation modelling (Chin, 1998; Lohmöller, 1989; Wold, 1985) with SmartPLS 2.0.M3 (Ringle et al., 2005). While other methods of structural equation modelling – such as the covariance-based LISREL or AMOS – are more common indeed, we decided in favour of PLS due to its predictive nature and suitability for explorative research (Chin, 1998).

DATA ANALYSIS AND RESULTS

Hierarchical Regression

We tested the unique contribution of the four groups of variables on explaining Entrepreneurial Intentions by employing hierarchical regression. Normality, linearity and homoscedasticity of residuals were examined and discovered to be acceptable by using the diagnostic tools available in SPSS. With the use of a \( p < 0.001 \) criterion for Mahalanobis distance (Tabachnick and Fidell, 2007), no outliers were identified. A peek at the intercorrelations between the three independent TPB variables reveals that these are moderate and do not indicate serious multicollinearity in the sample. This conclusion was supported by the collinearity statistics provided by SPSS as part of the regression analysis.
Table 1 presents the results of the four-step hierarchical regression. In the first step, we entered only the background characteristics into the model (Model 1). Here, only gender turned out to be a significant predictor of Entrepreneurial Intentions ($p < 0.01$). Thus, being female has a negative impact on entrepreneurial intentions in the third age. However, the background characteristics alone explain only 2% of the variance in the dependent variable. In the second step, the three independent TPB variables were entered into the equation (Model 2) and all of them turned out to be significant at the $p < 0.001$ level. Perceived Behavioural Control and Subjective Norm have slightly higher weights (standardized coefficients) than Entrepreneurial Attitudes. With the independent TPB variables in the model, none of the background characteristics was significant. Since the independent TPB variables explain 40% of the variance in Entrepreneurial Intentions, Proposition 1 and the predictive value of the TPB also in the context of entrepreneurial intentions in the third age are clearly confirmed.

Now that the effects of the background characteristics and the main independent variables in the TPB had been controlled for, we turned our attention to the cultural perception of older age and the career history variables to determine their unique direct contribution to explaining Entrepreneurial Intentions. First, we entered the cultural perception of older age into the model (Model 3). This variable is statistically significant at the $p < 0.05$ level with the background characteristics and the independent TPB variables in the model. While the R$^2$ change contributed by the addition of this construct into the model is significant at the $p < 0.05$ level, the actual contribution to the explanation of variance in the dependent variable is only one percent.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (1=female)</td>
<td>-0.15**</td>
<td>-0.04</td>
<td>-0.05</td>
<td>-0.08†</td>
</tr>
<tr>
<td>Age</td>
<td>-0.05</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td>Entrepreneurial experience (1=yes)</td>
<td>0.06</td>
<td>-0.05</td>
<td>-0.04</td>
<td>-0.07</td>
</tr>
<tr>
<td><strong>Theory of Planned Behaviour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial Attitudes</td>
<td>0.25***</td>
<td>0.22***</td>
<td>0.22***</td>
<td></td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>0.29***</td>
<td>0.27***</td>
<td>0.26***</td>
<td></td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>0.31***</td>
<td>0.29***</td>
<td>0.28***</td>
<td></td>
</tr>
<tr>
<td><strong>Cultural Perception of Older Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Perception of Older Age</td>
<td>0.12*</td>
<td></td>
<td></td>
<td>0.11†</td>
</tr>
<tr>
<td><strong>Career history</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial worker (1=yes)</td>
<td>-0.13**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public sector worker (1=yes)</td>
<td>-0.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small organisation worker (1=yes)</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R$^2$</td>
<td>0.02</td>
<td>0.40</td>
<td>0.41</td>
<td>0.42</td>
</tr>
<tr>
<td>F-value</td>
<td>3.09†</td>
<td>34.03***</td>
<td>30.56***</td>
<td>22.48***</td>
</tr>
<tr>
<td>Change in R$^2$</td>
<td>0.38</td>
<td>0.01</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>F-value for Change in R$^2$</td>
<td>63.03***</td>
<td>6.15†</td>
<td>2.52†</td>
<td></td>
</tr>
</tbody>
</table>

† $p < 0.10$; †† $p < 0.05$; ††† $p < 0.01$; *** $p < 0.001$. Standardized coefficients reported. Pairwise deletion of missing values (N=358).

Finally, the three variables related to the individual’s career history were added to the regression model (Model 4). Here, having spent the majority of one’s career as a “blue-collar” worker in industrial organizations was the only significant predictor of Entrepreneurial Intentions (at the $p < 0.01$ level). However, the R$^2$ change contributed by the addition of these three variables into the model was only almost
significant ($p < 0.10$), while the actual contribution to the explanation of variance in the dependent variable was two percent.

The final regression model explains 42% of the variance in Entrepreneurial Intentions. Almost all of this explanatory power is contributed by the three independent variables in the TPB, which are all significant at the $p < 0.001$ level. Even though the cultural perception of older age and having spent the primary career as an employee in large industrial organizations are significant, their actual contribution to the model is marginal. Therefore, their unique direct contribution to explaining entrepreneurial intentions in the third age is marginal and the impact is thus more likely to occur indirectly via Entrepreneurial Attitudes, Subjective Norm and Perceived Behavioural Control, as predicted by the TPB.

**PLS Path Model**

The indirect effects of the cultural perception of older age, career history and background characteristics were explored with a simple PLS path model. For reasons of comparability, we did not construct latent variables from individual items but simply used the same composite variables as in the regression analysis. Since no multi-item constructs were included in the model, there was no need to perform a measurement model assessment as is usually done in PLS analyses (Chin, 1998). Instead, we could rely on the construct reliability measures from the regression analysis. The structural model was estimated utilizing the path weighting scheme, which is the only weighting scheme that explicitly considers the directions of the causal relationships between exogenous and endogenous variables (Chin, 1998; Lohmöller, 1989). Following common conventions, the abort criterion for the iterative estimation process was selected as a change of the estimated values of just $10^{-5}$ percent between two iterations. A standard bootstrapping procedure (Yung and Bentler, 1996) with 500 re-samples consisting of the same number of cases as in the original sample was applied in order to determine the significance of each estimated path.

Table 2 presents the results of the structural model analysis. Here, only Entrepreneurial Attitudes, Subjective Norm and Perceived Behavioural Control are directly connected to Entrepreneurial Intentions, whereas all the other variables are connected to each of the three independent TPB variables. The results of the path model analysis confirm the validity of the TPB and Proposition 1: similarly to the preceding regression analysis, the three independent variables are all statistically significant predictors of Entrepreneurial Intentions at the $p < 0.001$ level, explaining 41% of the variance in the dependent variable. Moreover, the $Q^2$ value associated with the Stone-Geisser-Criterion is clearly higher than zero for the dependent variable, which points towards the interpretation that the model is of satisfying predictive relevance (Chin, 1998). This indicates that an interpretation of the conceptual model’s causal relationships is possible. Similarly to the regression results, Entrepreneurial Attitudes was the weakest predictor of Entrepreneurial Intentions among the three variables, albeit the differences in path coefficients are fairly marginal.

However, the actual interesting part of Table 2 concerns the path coefficients from the rest of the model variables to the three independent TPB variables. Interestingly, most of these paths reach statistical significance at least at the $p < 0.10$ level. While the variances explained in the three independent TPB variables are not considerable as such, the $R^2$ values of 0.11-0.17 are not marginal either. Similarly, the $Q^2$ values being clearly above zero indicates predictive relevance for the paths from the cultural perception of older age, career history and background characteristics to the independent TPB variables. Therefore, the prediction of the TPB proposing that variables related to the individual characteristics and the surrounding environment influence intentions indirectly via the three independent variables of attitudes, subjective norm and perceived behavioural control receives strong support in our results.

Proposition 2 concerned the impact of the cultural perception of older age on entrepreneurial intentions in the third age. While this construct made a negligible unique contribution to the explanation of Entrepreneurial Intentions in the regression model, it had a significant positive effect on all of the three independent TPB variables in the PLS path model. In other words, a positive cultural perception of the enterprising potential of older people does have a significant indirect impact on third age entrepreneurial intentions, which supports Proposition 2. However, this result should be considered as preliminary only.
since the cultural perception of older age construct was not quite satisfactory in terms of its Cronbach alpha value.

**TABLE 2. Results of the PLS path model analysis**

<table>
<thead>
<tr>
<th>Background characteristics</th>
<th>Entrepreneurial Attitudes</th>
<th>Subjective Norm</th>
<th>Perceived Behavioural Control</th>
<th>Entrepreneurial Intentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (1=female)</td>
<td>-0.18***</td>
<td>-0.11*</td>
<td>-0.20***</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.12*</td>
<td>-0.09*</td>
<td>-0.13*</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial experience</td>
<td>0.13**</td>
<td>0.12*</td>
<td>0.11*</td>
<td></td>
</tr>
<tr>
<td><strong>Theory of Planned Behaviour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial Attitudes</td>
<td>-</td>
<td>-</td>
<td>0.26***</td>
<td></td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>-</td>
<td>-</td>
<td>0.28***</td>
<td></td>
</tr>
<tr>
<td>Perceived Behavioural Control</td>
<td>-</td>
<td>-</td>
<td>0.31***</td>
<td></td>
</tr>
<tr>
<td><strong>Cultural perception of older age</strong></td>
<td>0.27***</td>
<td>0.24***</td>
<td>0.27***</td>
<td></td>
</tr>
<tr>
<td><strong>Career history</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial worker</td>
<td>-0.06*</td>
<td>-0.07*</td>
<td>-0.08*</td>
<td></td>
</tr>
<tr>
<td>Public sector worker</td>
<td>0.04</td>
<td>-0.10*</td>
<td>-0.05</td>
<td></td>
</tr>
<tr>
<td>Small organization worker</td>
<td>-0.12**</td>
<td>0.03</td>
<td>-0.04</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.17</td>
<td>0.11</td>
<td>0.15</td>
<td>0.41</td>
</tr>
<tr>
<td>Q²</td>
<td>0.14</td>
<td>0.12</td>
<td>0.16</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Path coefficients reported. *p < 0.10; *p < 0.05; **p < 0.01; ***p < 0.001 (based one one-sided t-test with 500 df).

In terms of Propositions 3a-c concerning the individual’s career history, only one of the three variables was statistically significant (p < 0.01) in the regression analysis. Proposition 3a suggested that a primary career as a “blue-collar” industrial worker has a negative impact on third age entrepreneurial intentions. This proposition receives some support both in the regression analysis and in the PLS path model. Proposition 3b postulated a similar negative relationship between a primary career in the public sector and third age entrepreneurial intentions. This was not supported by the regression results and the PLS path model results do not tell a clear story either. Having worked in the public sector has a small negative impact on Subjective Norm, while the remaining two paths are not significant. As a whole, these results do not seem to support Proposition 3b. Having spent most of one’s career in a small organization (Proposition 3c) did not turn out to be significant in the regression analysis and only the path to Entrepreneurial Attitudes was significant in the PLS analysis. Interestingly, the path coefficient was negative rather than positive as expected based on previous research.

While being female was the only background characteristic even close to significant in the regression model, all paths from the background characteristics to the three independent TPB variables are significant at some level in the PLS path model. Being female has a statistically significant negative effect on Entrepreneurial Attitudes and Perceived Behavioural Control at the p < 0.001 level, and a similar impact on Subjective Norm at the p < 0.05 level. Age is positively and significantly associated with Entrepreneurial Attitudes (p < 0.01) and negatively associated with Subjective Norm and Perceived Behavioural Control (both at p < 0.05). Finally, the PLS path analysis shows that previous entrepreneurial experience has a positive and statistically significant effect on all of the independent TPB variables, albeit two of the paths are only at the p < 0.05 significance level.

**DISCUSSION**

The first aim of our study was to test the validity of the Theory of Planned Behaviour (TPB) in predicting entrepreneurial intentions in the 50-64 year-old segment, given that previous research had primarily
focused on analysing students’ entrepreneurial intentions. Following the TPB, Proposition 1 predicted that the more favourable the attitude and subjective norm with respect to starting up in business and the greater the perceived behavioural control, the higher the level of entrepreneurial intentions. Both the hierarchical regression and the PLS path model analyses found the effect of each of the three independent variables on entrepreneurial intentions to be significant at the $p < 0.001$ level. Hence, Proposition 1 was clearly supported and we may conclude that the TPB has predictive validity in the context of entrepreneurial intentions in the third age. Further, the results revealed that the independent variables related to the characteristics of the individual and the surrounding environment indeed have a mostly indirect effect on entrepreneurial intentions via the three independent TPB variables. Again, this is in keeping with the predictions in the TPB.

The second contribution of the study concerned the impact of the cultural perception of the potential of older people, the individual’s career history, gender, age and previous entrepreneurial experience on entrepreneurial intentions in the third age. Proposition 2 postulated that the cultural perception of the potential of older people in a society affects their entrepreneurial intentions either favourably by supporting the older individuals’ belief in their capability to establish a business or unfavourably through social stigmas generated by ageism. Our analysis tested whether the older individual’s perception as to older people’s general capacity to start up in business affects their entrepreneurial intentions. The results indicated that this variable has a statistically significant ($p < 0.001$) and positive effect on all three independent TPB variables. Therefore, it seems that how an older individual views the general enterprising potential of older people plays an important role in the formation of entrepreneurial intentions in the third age. However, the construct used to measure the cultural perception of older age was not quite satisfactory and thus the result should be interpreted with care and confirmed in future studies with improved measurement scales.

In terms of the individual’s career history, we proposed that a primary career as a “blue-collar” worker in large industrial organizations or as an employee at any hierarchical level in the public sector would have a negative effect on third age entrepreneurial intentions (Propositions 3a and 3b, respectively). The results showed that individuals who have spent the majority of their career as employees in large industrial organizations indeed have somewhat lower entrepreneurial intentions. On the other hand, the results concerning the effect of a career history in the public sector were somewhat contradictory. While previous research (Gibb, 2001; Mazzarol et al., 1999) has proposed that the socialization of public sector employees into a working culture that is not entrepreneurially oriented may have a negative influence on their enterprising potential, our results only show a moderate negative effect on subjective norm. In sum, we found some support for Proposition 3a but only very little support for Proposition 3b.

Further, we proposed that a primary career in small organizations would equip the individual with skills and behavioural patterns suitable for starting and running a small business, which would contribute positively towards their entrepreneurial intentions (Proposition 3c). Our results did not support this proposition at all. The only significant path in the PLS model was in fact a negative effect on entrepreneurial attitudes. A possible interpretation is that perhaps working in a small organization gives the individual a more realistic idea of entrepreneurship on a day-to-day level, which leads to a negative attitude towards starting and running an own business (cf. Parker, 2004).

All of the background characteristics showed a statistically significant (at varying levels of significance) impact on all of the three independent TPB variables. Here, being female had a particularly negative effect indicating that older women have clearly lower tendencies towards entrepreneurial behaviour than older men. This finding is parallel to the results in previous studies of older enterprise (Kautonen, 2007; PRIME Initiative, 2006). The result also confirms that the removal of family obligations does not contribute positively to entrepreneurial intentions but the reasons for lesser entrepreneurial tendencies among older women are found elsewhere. One possible explanation in this context relates to the social norms concerning the gender roles and “appropriate behaviour” in this age cohort (Kautonen, 2007; McKay, 2001). This issue should be addressed in further research.

Further, we expected entrepreneurial intentions to decrease with age, even within the third age segment, as proposed in previous research (Lévesque and Minniti, 2006; PRIME Initiative, 2006; Rotefoss and
Kolvereid, 2005). The results were not quite straightforward. Thus, the older the individual is, the more favourable their attitudes towards enterprise. However, at the same time, the older the individual is, the lesser their subjective norm and perceived behavioural control scores. In other words, they do not perceive their family, friends and other close people to support entrepreneurial activities as much as younger individuals in the third age segment, and their belief in their own capability to start a business successfully decreases with age too.

Finally, previous entrepreneurial experience was expected to affect entrepreneurial intentions favourably due to the experienced individual having a more entrepreneurial mindset and a better knowledge base, which together help them identify business opportunities and start and run a businesses (Minniti and Bygrave, 2001; Rotefoss and Kolvereid, 2005; Ucbasaran et al., 2003). Indeed, previous entrepreneurial experience was found to have a moderate positive effect on third age entrepreneurial intentions, which provides support to previous research results.

REFERENCES


